Title:

A Quantitative Investigation on the Effects that ESG Investing has had on the Economic Standing of the Companies that Make Up the FTSE 100.

ABSTRACT

The primary objective of the study was to explore the effects of ESG on the economic status of companies that are included on the FTSE 100 index. To fulfil this objective, quantitative analysis was carried out with the assistance of the SPSS application. Before that, an examination of the relevant literature revealed that businesses will continue to endogenize their disclosure in any given scenario to maximize the effectiveness of their economic activities; consequently, extra-financial disclosures might not bring about a reduction in information inequality. The provision of helpful data on the economic, social, and governance spheres, on the other hand, will assist organizations in better reporting themselves in an open and transparent manner. According to the findings of the SPSS study, it is essential to keep in mind that the connection between ESG investments and firm success may be different depending on the sector of business, the ESG criteria that are being evaluated, and the amount of time that is being analysed. Although there is evidence to suggest that businesses that prioritize ESG factors tend to perform better financially, there is also evidence to suggest that companies that prioritize ESG factors tend to perform better financially. However, there are studies that have found no significant relationship between ESG investments and financial performance. According to the findings of this study, there is a correlation between ESG and the financial performance of companies that is favourable.

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Chapter 1: Introduction

1.1: Introduction

The major purpose of the chapter is to provide an overview of ESG investing and its impact on economic activities along with formulating research aims, objectives, and questions. The chapter also provides a precise summary of the chapter.

1.2: An Overview of the Research Topic

More long-term investments into economically sustainable activities and projects are made through a process known as sustainable finance, which considers environmental, social, and governance considerations (Atz et al. 2019). In addition to financial returns, investors' desire to make a positive social and environmental impact has been a key factor in the industry's rapid expansion. This development is a reaction to a wider movement that has prompted many nations to coordinate their efforts for the sake of worldwide betterment (Berg et al. 2019). These ideas have just recently begun to be actively pursued by the finance industry as a means of improving standard investment procedures. The Environmental, Social, and Governance (ESG) rating is the result of this desire and is the foundation of ESG Investment.

To provide long-term value for investors, environmental, social, and governance ("ESG") investing has developed over the past several years to fulfil the needs of both institutional and individual shareholders as well as some public sector agencies (Cheema et al. 2019). Controversies and negative risks related to environmental, social, and governance categories can reduce equity value and increase credit risk over time. Hence, it seeks to incorporate the values of investors and beneficiaries into an investing strategy, while also enhancing risk management and portfolio returns (Clark et al. 2019). As such, ESG is now generally understood to be an investment strategy that works to generate long-term financial returns by

factoring in more comprehensive and consistent data on material environmental, social, and governance trends, risks, and opportunities (Cheema-Fox et al. 2019).

In addition, the method can help investors, as well as stakeholders, use ESG data for ethical or impact investment, in which financial gains are secondary to other objectives. Hence, there is a growing call for these groups to better align their portfolios with society's ideals including reducing the rate of climate change, fostering more equitable business practices, and establishing transparent, accountable, and effective corporate governance (Das et al. 2018). Investors who want to evaluate the potential for social returns consistently across firms and time can use ESG disclosure as a tool, while issuers who want to evaluate and convey their socially responsible activities can use ESG disclosure (Diaz-Rainey et al. 2017).

Inconsistent use of terms and nomenclature is a common problem in research relating ESG to financial success. Studies frequently blur the lines between important and unimportant ESG concerns and between ESG pioneers and followers. The stock performance of firms focusing on material concerns outperforms those that concentrate on inconsequential ESG issues or no ESG issues at all, as shown by Dorfleitner et al. (2018) as an illustration of the alpha potential when adding "material" ESG issues. Similar findings may be seen in studies conducted by Rockefeller Asset Management, with one study highlighting the growing gap between ESG integration "Leaders" and "Improvers" and another finding that a focus on meaningful ESG issue improvement has the potential to increase long-term alpha. Lack of standardization with ESG data also complicates the outcomes. Many data sources give different scores to various businesses, and these values are then used in various studies. The paucity of high-quality data on the business's performance on their material ESG criteria is, according to a global survey of institutional investors assessed by Douglas et al. (2017). The majority (58%) of the "business" studies that looked at operational metrics including return on equity (ROE), return

on assets (ROA), and stock price showed a favourable association between ESG and financial performance, while 13% found no influence, 21% found both positive and negative outcomes, and just 8% found no relationship at all (Das et al. 2018).

Three-fifths of the research that looked at investing performance based on risk-adjusted qualities, like alpha or the Sharpe ratio for a stock portfolio, found positive results. Around a quarter of the studies found no effect (those investments did about as well as the norm) while another quarter found positive effects (research evaluated a wide range of factors, time periods, and samples). Just fourteen percent identified negative effects. That is 59 percent performed as well as or better than more traditional investment strategies, while 14 percent underperformed (Atz et al. 2019). When we looked at 59 studies on the effects of climate change or low carbon on financial performance, we saw encouraging outcomes. Sixty-seven percent of company leaders saw a favourable outcome, whereas 29 percent have seen no effect, 9 percentage saw a mixed outcome, and 6 percent saw a negative outcome. Sixty-five percent of investors who participated in the poll reported positive or neutral results compared to the more conventional investment options, while thirteen percent reported unfavourable results. Notably, the probabilities of discovering a positive link between ESG and financial success were just one in three for research that lacked a social science theory but averaged one of those in two for investigations that did provide a social scientific theory (Berg et al. 2019).

Considering the significance of this conclusion, it is important to investigate the mechanisms linking ESG to financial outcomes. Corporate Sustainability: A Strategy? by Ioannou and Serafeim (2019) examined whether sustainability should be viewed as a strategic approach (resulting in a competitive advantage) or a standard practice. They conclude that both choices have merit and that the process of implementing sustainability over time is intricate and ever-changing (Clark et al. 2020). ESG does have some restrictions. For instance, as

indicated in ESG ratings, cannot be quantified precisely. Although the specific E, S, and G elements can be analysed if the relevant auditable data are recorded, several critics argue that composite ESG ratings have little relevance (Das et al. 2018).

The disparity is made worse by the fact that different ESG ratings and score providers use different weighting and methodologies. Significant correlations with overvaluation, when they occur, could be attributed to different variables and, in any case, are not causative, which is another argument against ESG (Demers et al. 2020). Indeed, it would defy logic if ESG ratings from different reviews and rankings companies, trying to measure various businesses, using distinct methods and techniques, weighted linear metrics differentially, and examining a variety of companies operating in different geographic regions, all generated a relatively close rating which almost exactly aligned company performance (Clark et al. 2020). Many factors (including, but not limited to, market headwinds or tailwinds) could explain observed correlations with performance, and these factors could shift over time. 18 Numerous research has cast doubt on the idea that there is a direct correlation between ESG metrics and financial outcomes (Berg et al. 2019). A recent meta-analysis found that most ESG-focused institutional investors do beat the broader market by a factor of 20. However, not all ESG funds do so, and even the businesses and institutions that have excelled may have done so for other reasons.

1.3: Research Aim

The study's overarching objective is to learn how the FTSE 100 firms' financial profiles change because of their ESG practices. Several goals, outlined below, have been set up for this reason.

1.4: Research Objectives

- To conduct an evaluation of ESG's impact on the financial performance of FTSE 100 firms
- To investigate and analyse the impact of ESG on the financial outcomes of businesses.
- To determine whether ESG factors into the growth or decline of FTSE companies' bottom lines.

1.5: Research Questions

The three main topics of inquiry are:

1. To what extent do ESG (environmental, social, and governance) considerations affect the bottom lines of businesses that aren't part of the FTSE 100?
2. Second, how do concerns over ESG (environmental, social, and governance) affect the FTSE 100's financial standing and performance?
3. And thirdly, how do ecological, socioeconomic, and governance (ESG) considerations affect the financial success of FTSE 100 companies?

1.6: Research Justification

Theoretically, issuers that factor in these societal challenges have a greater chance of avoiding controversies, enhancing their reputations, keeping customers and employees, and retaining the faith of shareholders throughout the medium to long term, especially during times of uncertainty and upheaval. The topic of whether current ESG processes are adequately releasing material information that may be accessed and effectively used by investors remains unanswered. Despite the critical significance of investment alignment with society, this research focuses on the potential of sustainable finance to create wealth over the long term. As such, it seeks to aid in the comprehension of how far ESG investment

procedures and practices go in bolstering transparency and market integrity, and how far they go in attaining the desired outcomes.

1.7: Dissertation Structure

The dissertation consists of five major parts. The literature review follows the introductory chapter by providing a critical analysis of ESG, ESG impacts on firms, ESG impacts on firms' performance, and benefits and challenges. Data gathering and analysis are briefly described in the research methodology. Quantitative analysis performed with the SPSS program and a discussion of quantitative factors are presented in the findings chapter. After that, a clear conclusion is made based on the study's most important findings.

1.8: Summary

This chapter introduced the research issue and then discussed the research's goals, hypotheses, and methods. Together, the dissertation's framework and the research's justification are discussed at length. A critical analysis of the literature review is presented in the following chapter to aid with the systematic approach to the research problem that has been uncovered by these findings.

Chapter 2: Literature Review

2.1: Introduction

A rising number of people in every region of the world are calling for carbon restrictions and other measures to help mitigate the effects of climate change. In addition, there is a rising tide of public discontent with the unethical practices of some businesses. The EU's financial institutions' propensity to invest and lend will be affected by a slew of new regulations. The ability of corporations to obtain finance, both inside the EU and beyond, may be significantly affected by the new regulations, especially considering rising investor demands. To meet these shifting requirements and meet the rising expectations of both financial and non-financial reporting, organisations must take immediate action in analysing ESG risks and opportunities for their operations and on proper ESG disclosures. Therefore, the major purpose of the discussion is to analyse how ESG impacts the economic standing of FTSE 100 companies. Sustainable finance is the practice of incorporating environmental, social, and governance considerations into the financial decision-making process to boost long-term investments in economically beneficial activities and projects (Ali et al. 2022). It has expanded thanks to investors' interest in making a positive social and environmental effect alongside financial returns (Chen et al. 2022). This expansion is a direct result of a wider movement that has inspired many nations to pool their resources to hasten worldwide betterment. The financial sector is now taking a more proactive role in attempting to apply these ideas to real-world investment. The Environmental, Social, and Governance (ESG) rating is a product of this desire, and it is the foundation of ESG Investing (Duque-Grisales et al. 2021). Institutional and individual businesses, in addition to certain public sector authorities, are increasingly looking to "ESG" investments to build long-term value by successfully incorporating long-term possibilities and investment risk into their investment decision-making processes (Hamdi et al. 2022).

Long-term challenges may be broken down into three categories: environmental, social, and governance, each of which might affect the operational and functional framework of companies providing different kinds of risk scenarios. For that reason, it seeks to incorporate the values of investors and beneficiaries into an investing strategy that simultaneously prioritises prudent risk management and increased portfolio returns (Liu, 2022). Investing professionals now commonly refer to ESG as an investment strategy that aims to create long-term financial returns by factoring in more and more consistent knowledge of substantial environmental, social, and governance trends, risks, and opportunities. The primary objective of this talk is to analyse how ESG investing affects the FTSE 100's bottom line. Purposefully, this involves looking at the bigger picture and the little picture of the economy. The second part of this article provides a high-level analysis of how ESG factors into the financial results of firms.

2.2: Macroeconomic Effects of ESG

The macroeconomic impacts of ESG disclosure laws, according to Chen et al. (2022), are ignored. Although there may be a positive feedback loop triggered by Voluntary disclosure and economic growth, the researcher has been unable to find any studies examining this relationship. This study aims to raise awareness of the topic's importance so that ESG processes can result in long-term income activity rather than merely being an effort in legislative compliance designed to suit some political preferences. Using economic policies and regulatory tools, ESG is meant to encourage economies to prioritise sustainable industries. This indicates that, at least in the long run, ESG initiatives result in economic development. The literature on economic growth, however, suggests that this may be deceptive (Diaye et al. 2022).

The discussion of the correlation between environmental, social, and governance (ESG) disclosure and economic expansion would be incomplete without discussing the factors that

shape that correlation. Over the past few decades, researchers have paid more and more attention to the role that public information plays in influencing economic-market stability and investment decisions. There is widespread agreement that non-financial information has a material impact on the behaviour of stock markets, especially during periods of economic or political unpredictability (Cepoi 2020; Hwang et al. 2021; Engelhardt et al. 2021). There is strong evidence in the existing literature that financial disclosures can lower the cost of financing by reducing information asymmetry (Wong and Zhang 2022). The proposed argument in this dissertation argues that the current trend of full non-financial disclosure is not optimal and that businesses will continue to weigh the benefits of transparency against the risks of non-compliance with regulations. In the present sustainable analysis, the post-transition phase is mostly ignored.

To move from an extractive to a regenerative economy, the transition is a vision-led, unified, and place-based set of principles, procedures, and practises that strengthen political and economic power. In other words, a zero-waste, holistic approach to the manufacturing and consumption cycles is required. After the transition is complete, it may offer concrete proposals for incentivizing sustainable investments through compensation. It may also aid in the identification of the optimum level of ESG disclosure and the allocation of a meaningful role to economically unsustainable operations to prevent their eventual elimination.

Instead, of focusing on economic growth, empirical studies of the ESG-growth link tend to examine ESG-related factors. Only two studies have now examined the connections between economic expansion and ESG (all three tenets) (Diaye et al. 2022 and Shkura 2019). A long-term positive correlation between ESG and GDP per capita was discovered by Diaye et al. (2022). Short-term, however, only two nations gain from this good connection. According to Shkura (2019), "it can be determined that only measures of openness may be related with the regional sustainable themed responsible investment (SRI) market growth" after analysing

several macroeconomic variables and their effect on SRI. Therefore, she concludes that there is no link between SRI and a flourishing economy. Since ESG is often viewed as a long-term idea, this may be because she does not conduct long-term tests. Therefore, it is important to make a clear difference between the impacts that last just temporarily and the ones that last forever (Diaye et al. 2022).

When looking at how each ESG factor affects GDP growth, we find a dampening effect. Some researchers have proposed a theory called "Green Growth Theory" to explain the positive correlation between economic growth and improved environmental quality. Moreover, other research shows that environmental factors are negatively associated with ESG. Finally, findings from a team of academics imply there is no proof that environmental quality routinely declines alongside economic development (Shakura, 2021, Hwang et al. 2021). When it comes to the Governance pillar, several studies have shown that better governance and institutions are essential for boosting economic success. The economic crisis, however, disproves this claim, as AlBassam (2013) explains in the cited article.

According to Parra and Moulaert (2011), the social pillar remains the least valued of the ESG triad. Social equality, however, was found to greatly increase economic production. Several other scholars Kumar (2022) agree that social performance is positively correlated with economic growth.

Not all economists agree that it is necessary to keep economic growth steady while also enhancing ESG performance, and this is something to keep in mind. Diaye et al. (2022) state that there are two camps of scholars who believe that economic degrowth is necessary to attain global sustainable goals. The first is based on the "degrowth" notion. According to this body of research, the adoption of ESG policies and objectives might slow economic development by lowering both consumption and output. The "Sustainable Degrowth" idea (Martnez-Alier et al., 2010) argues that slowing economic growth during a transition to

sustainability can have positive effects. More economic production (Ecological Growth) is said to speed up global warming, biodiversity loss, and resource depletion (Martnez-Alier et al., 2010) by proponents of the Sustainable Degrowth theory. The second set of people is making their case using concepts from the theory of social comparison and envy. Individuals' perceptions of their own social and personal values are shaped by their comparisons to those of other people, according to Social Comparison Theory. According to Morgan-Knapp (2014), such actions are consistently unreasonable and may contribute to economic decline. Therefore, it can be said that the idea of sustainable and economic development is based on how individuals or companies are drawing insights from their activities. There is a need to assess social as well as economic benefits while developing the impact of ESG. Therefore, the next section is based on assessing how profit sharing and social responsibility are interrelated and, which factors can lead to discrepancies.

2.3: Profit Sharing and Social Responsibility

To answer the questions posed in this section, it is necessary to differentiate between the economic consequences of Corporate Social Responsibility (CSR) activities which are reported, and which are not reported. The researcher will get into the former scenario later (Disclosure by Firms) and zero in on the latter here. Few studies have investigated the correlation between CSR and economic expansion (Kare and Golja, 2014).

A positive correlation between CSR initiatives and GDP expansion was found in the literature we analyzed. CSR highlights its positive effects on economic growth by supporting a variety of social causes (Shakil et al. 2019). Financial institutions, according to Sharma and Sathish (2022), play a vital role in encouraging CSR initiatives (CSR). So, it is important to examine the relationship between CSR and financial growth in order to appreciate the relationship between CSR and growth. Raising a company's value can be accomplished through more transparency, which can result in increased investor interest, reduced capital

expenditure, and/or increased working capital to shareholders. Getting the word out, however, is not free. The total cost of the disclosure includes the costs associated with producing and disseminating the information.

Expenses like this include the cost of hiring accountants, auditors, etc., as well as the cost of installing an information system to collect, analyse, and disseminate data about the organization (Hassan and Marston 2010). Moreover, disclosure is a deliberate cost since rivals might exploit the knowledge that has been published, thus increasing the disclosing company's expenses. However, as a part of CSR, companies need to make sure that their efforts are guided by an honest and transparent approach helping them to add business value.

It has been suggested in the literature that in cases of voluntary disclosure, each stakeholder determines the extent to which they are comfortable disclosing information to one another. "This decision entails weighing the benefits of lower costs for incentives, litigation, and private knowledge against the disadvantages of even greater reductions in the cost of capital due to reduced information asymmetry" (Kumar, 2022). To this end, Kumar (2022) argues that organisations with limited development potential will benefit most from Mandatory Disclosure. Since obligatory disclosure is anticipated to be of low quality and have a minimal effect on information asymmetry, it is ineffective for enterprises with substantial growth possibilities.

The ideal level of information asymmetry reduction for these companies is found by balancing the benefits of reduced capital and litigation expenses against the costs of increased proprietary and incentive disclosure. Even after making this best decision, high-growth organisations utilise more voluntary disclosure and presumably have higher information asymmetry than low-growth ones. (Kumar, 2022).

As has been noted elsewhere (e.g., Christensen et al., 2021), one of the primary purposes of corporate disclosure is to reduce the impact of knowledge asymmetry between the firm and

its investors. We have a good idea of what part Sustainable Information Disclosure plays in the big picture. Its goal is to ease the way toward a more equitable and environmentally friendly society. There is a lack of a clear and convincing economic rationale for the present sustainable policy. These policies might have both beneficial (on the environment, for instance) and negative (on the economy and global welfare) impacts.

The benefits are summed up as follows: firstly, transparency encourages pro-ESG investors to keep pursuing sustainable strategies by reducing the impact of adverse selection. This should reduce the required rate of return from investors, which in turn reduces the cost of capital for long-term projects with higher liquidity and more predictable cash flow projections. Second, investors could be more likely to hold stocks with high ESG ratings if they are made aware of the ratings' existence through disclosure. Having more pro-ESG investors would promote economic risk sharing with a view of sharing data and information with all stakeholders in an open and transparent manner. The third benefit of transparency is that it allows corporate outsiders like analysts and institutional investors to keep an eye on managers, which in turn leads to better management decision-making and more productive corporate investments (Christensen et al. 2021).

In conclusion, when one company discloses, other companies (such as its customers and suppliers) might benefit from it through knowledge transfers and spillover, which in turn can affect the degree to which they themselves are transparent with their own data.

Due to the potentially far-reaching unintended consequences of ESG Disclosure, established practices like the use of taxonomy may be called into question. First, an information imbalance, especially at the international level, is created by the lack of standardised worldwide non-financial obligatory reporting. Second, if a company's name is leaked in terms of not being transparent, its competitors and potential investors will be able to get insight into its plans and activities, thereby undermining its success. Liquidity risk may result if such

actions discourage potential pro-ESG investors. If this effect is significant, then it is necessary to strike a balance between complete secrecy and complete openness to safeguard businesses from their rivals. Experts need to dig further into this problem to foresee the negative impacts it will have on the sustainable transition process. Third, businesses' optimization of their operations won't be affected by mandated disclosures of sustainability information. Companies will always have to weigh the benefits of more transparency (lower capital and litigation costs) against the drawbacks (higher ownership and incentive costs) that deter them from doing so. The "optimal" level of transparency, which would motivate accurate reporting and discourage "greenwashing," is, of course, associated with this concept. Finally, successful reporting will need to consider the stage of development at which the company is operating. This means that the standards for optimal disclosure will need to be determined considering the size and growth prospects of the companies (Diaye et al., 2022).

The effectiveness of ESG reporting is yet unproven. The following is a new finding, as reported by Haji et al. (2022): Consistent with corporate legitimization and "greenwashing" viewpoints, empirical research reveals that CSR reporting remains mostly ritualistic rather than meaningful despite the rules. There is mounting evidence, however, of both the beneficial and bad consequences of the laws on capital markets and in real life. Policies Regarding Environmental, Social, and Governance Issues, and Their Financial Impact By requiring companies to disclose their environmental, social, and governance practises, ESG disclosure encourages the economic sector to prioritise greener industries using market-driven regulations and rules (Christensen et al. 2021).

The policy outlined in the growth hypothesis is congruent with this. An increase in a country's GDP is proportional to how well it does economically across all ESG dimensions. To be successful, this tactic requires a two-way causality relationship among ESG performance and economic growth. Furthermore, the literature is divided about whether ESG

performance leads to or follows economic growth (Ho et al., 2019; Diaye et al., 2022). According to economic research, current ESG policies (disclosure-taxonomy, etc.) will not help achieve a sustainable transition if economic development influences ESG performance (unidirectional). Therefore, conservation policies must be considered. ESG success is a by-product of economic expansion. Economic development influences ESG performance in three ways, as stated by Ho et al. (2019) Rocci et al (2021). First, a faster growth rate suggests that a country is better able to attain and maintain high investment rates, which in turn spurs technical progress and new forms of innovation. Second, a rise in both employment and income means more money to put toward good environmental, social, and governance measures. Third, rising prosperity may prompt behavioural shifts, with newly affluent citizens paying more attention to issues of social justice, environmental protection, and good government. So, policymakers and academics will have to investigate more economic channels (economic indicators) to improve sustainability indicators. There has to be more research done into the connections between ESG and economic expansion so that the transition can be managed more effectively. It's possible that in many countries, causes and effects act in both directions (e.g., Asiedu et al., 2021). This would imply that existing ESG measures are successful but might benefit from being bolstered by macroeconomic policies. Moreover, there is no conclusive proof of a positive correlation between CSR and expansion in the literature.

Therefore, excluding businesses whose practices aren't considered sustainable should have a chilling effect on economic expansion. Instead, these businesses might help finance sustainable initiatives like research and development, healthcare, rural development, and more if they were included in the transition process (Sharma and Sathish 2022). However, According to Chang et al. (2022), this results in the creation of a pure monopoly for sustainable businesses, and so, compulsory ESG reporting (Government Intervention) will

not let environmental CSR to increase the flexibility of the environment-growth trade-off and reach the first optimum. There is a lot of talk about ESG right now. A shift in perspective is occurring because of new understanding, legislation, and economic benefits. But as management is inherently metric, ESG management needs even more data to guarantee appropriate steps are taken. As a result, regulators have tightened the criteria for public reporting that businesses must meet. While enhancing the availability of ESG data is the stated goal of obligatory disclosure requirements, it is unclear whether these policies enhance the ESG data environment (Krueger et al. 2021). Indeed, anti-selection is triggered by knowledge asymmetry between lenders and borrowers, which has a negative impact on markets and encourages opportunistic behaviour (moral hazard). According to the idea of information economics, a lender will continue to gather data until the incremental cost of doing so no longer outweighs the incremental gain.

Again, signalling costs would prevent the borrower from disclosing all relevant information. Since one party doesn't have all the facts, the lender and borrower are at an informational disadvantage. Information is costly, and the market efficiency idea states that prices should accurately represent all relevant information. Financial instability and economic catastrophes are both exacerbated by knowledge asymmetry. When all knowledge is shared equally (symmetry), it causes a breakdown in commerce and the economy as market prices approach zero.

The data that is currently available is insufficient to adequately track the growth of the green bond market or evaluate the efficacy of this financial instrument, as it often lacks specifics on the end beneficiary sector of the money or the nature of the project being financed. Consequently, it becomes necessary to build official taxonomies of green projects and information on the sectors sponsored in addition to statistics on issuers. These requirements affect the whole green finance sector, not just the green bond market. More data from all

industries and businesses should be available thanks to new rules and taxonomy. Yet, in most instances, the incompleteness and lack of data might last much longer. As a result, there will always be a deficiency of data that is not monetary in nature.

There are factors, which could affect ESG in a critical manner and one of these factors is a high rate of interest. According to Alkerof's theory, lenders (investors) would impose high-interest rates to compensate for the absence of comprehensive information on the borrowers' projects if a lack of extra-financial information persists. This results in the departure of reputable lenders from the green lending industry, leaving behind just subpar ecological endeavours. To paraphrase Gresham's Law, "bad money tends to drive out good," this idea operates along similar lines. A notion that Alkerof refers to as "Anti-selection" or "Adverse selection" describes the process of eliminating undesirable ventures. By applying Akerlof's methodology to the loan market, Stiglitz and Weiss (1981) show that the loss experienced by the borrower due to bankruptcy has a greater effect than the increase in interest rates. According to these writers, credit rationing, which Jaffee and Stiglitz (1990) describe as "the rejection of a loan on conditions to which borrowers were ready to take on debt," is influenced by a lack of information sharing between lenders and borrowers. Increased prices trigger this process because riskier borrowers may afford to enter the market while being negatively selected against it as prices rise.

Asymmetries in information make it difficult for lenders to assess risk, which in turn reduces the availability of loans. Included in the category of "credit risk" here is the possibility that funding may be allocated to endeavours that aren't long-term viable.

During the first half of 2020, when the effects of the COVID-19 epidemic became apparent, firms' profitability declined drastically; however, we noticed that the higher the efficiency of ESG operations, the less the loss in earnings. This is according to Hwang et al. For Korean businesses, this was the situation. Studies conducted by Engelhardt et al. (2021) throughout

16 European countries found that companies with better ESG performance experienced substantially more overall abnormal returns and demonstrated much less effect from macroeconomic factors at the beginning of 2020. Both Lins et al. (2017) and Cornett et al. (2017) find strong evidence of a favourable impact of ESG practices on Firm Performance (FP) during the GFC (Global Financial Crisis). While ESG implementation is just getting started, it seems to have a more significant impact during times of high crises. Lenders utilise interest rate hikes and credit restrictions as defensive measures when they lack necessary information. Interest rates tend to go up in tandem with credit demand. Although sustainable debt is increasing at an exponential pace, a rise in sustainable debt interest rates is to be expected. France issued the first green bond pegged to inflation on May 25, 2022. (Benoit and Rolland 2022). This might be the beginning of a worldwide surge in environmentally friendly interest rates. This shift is likely permanent and will continue even if its origins in the conflict in Ukraine and the fallout from the COVID-19 incident are investigated. This suggests that the quick growth of green-sustainable debt and the prevalence of greenwashing in the market are both likely contributors to this rise. The research indicates that a steady increase in the green-interest rate is to be expected, followed by the swift withdrawal of certain pro-ESG investors from the green market. As one author puts it, "ESG effectiveness and the confidence it inspires can facilitate financial contracting by lessening negative selection as well as moral hazard concerns." Businesses with a favourable CSR rating had a reduced cost of debt in addition to stronger earnings, growth, and sales per employee. These findings demonstrate the value of a company's social capital investments in the face of a shock to the public's trust in businesses and markets (Lins et al., 2017). The research of Amiraslani et al. lends credence to this assessment of the crisis of 2008. (2022). In the wake of the trust and default risk-inducing financial crisis of 2008-2009, bond spreads were narrower for companies with a high degree of social equity (Amiraslani et al. 2022).

However, they find no correlation between social wealth and borrowing spreads from 2006-2019. The overwhelming fear that seized investors was exacerbated by the COVID-19 outbreak, which caused a precipitous decline in stock prices as well as financial instability. As a result, it is essential to examine the impact of ESG on the financial and economic decisions made by the FTSE 100.2.4: ESG Effect on FTSE 100 Companies

There has been an uptick in the amount of academic research conducted on the issue of the relationship between ESG standards and financial success during the past decade.

- There should be a clear delineation between ESG studies and those that examine the financial performance of a business or stock (De Masi et al. 2021). Third of FTSE 100 firms utilise traditional indicators for employee management risks, such as health and safety, the survey says (Landi et al. 2019).
- Newer ESG concerns including climate change, employee involvement, and diversity are only measured by 28% of organisations. Reducing a company's "cost of capital" is one of the many reasons that, according to SRI theory, ESG should contribute to improved performance.
- According to conventional wisdom, a company's cost of capital can go down enough to cover the expenses associated with instituting a socially responsible structure. As a result, Taliento et al. (2019) propose that corporate social responsibility (CSR) is a "product" that corporations sell to socially conscious investors; the question is whether CSR is lucrative for businesses.

ESG studies and financial performance, cost of capital, and CSR are interrelated in a common way. They all affect the process of ESG outcomes. Recent research has cast doubt on the idea that investor sentiment has much of an effect on the cost of capital. The "information impact"

of residual risk is another prevalent theoretical stance concerning ESG and company performance.

Several writers have argued that we may learn something about a company's risk management from its ratings on non-accounting factors (Weinberg, 2018). Therefore, organisations with high ESG ratings would have less residual risk than the market average. The well-known risk to one's reputation is integral to this paradigm. News, good and bad, may now travel at the speed of light because of the media's dramatic transformation over the past decade. For example, the market value of the firm might be negatively impacted by or even destroyed by a crisis in the company's image regarding ESG criteria. As reputation risk emerges as a key challenge for firms today, it is important to not overlook the risk-reducing influence of ESG (Landi et al. 2019).

Linking ESG accomplishment to executive remuneration remains a challenging issue in a world where blue-chip corporations are falling over themselves to demonstrate their ESG credentials (De Masi et al. 2021). There are a plethora of overlapping key performance indicators based on ESG metrics because of their variability from industry to industry. This means that a company's score—and a manager's salary—can vary widely depending on the metric used.

The compensation committee also has a latency issue. The research indicated that companies which implemented meaningful ESG initiatives had higher returns on investment (Landi et al. 2019). This harmony, however, does not completely manifest for at least five years.

Inconsistent use of terms and nomenclature plagues studies of the relationship between environmental, social, and economic performance. There are currently 33 definitions of corporate sustainability, as found by Meuer et al. (2019).

There has been insufficient study of the differences between embedded sustainability (ESG is part of the corporate plan) and standard Corporate Social Responsibility (CSR) efforts that emphasize community engagement and charity, leading to noise in the data (Douglas et al., 2017). Manchiraju and Rajgopal (2017) found this ambiguity. CSR in this context meant philanthropy and community outreach, not addressing the material ESG issues that could improve the company's long-term performance through sustainable practices.

It is very uncommon for studies to conflate ESG leaders and improvers, or to fail to differentiate between material and immaterial ESG issues. Stock performance of firms concentrating on material concerns outperformed those not focusing on these issues, as shown by Khan et al. (2016), demonstrating the alpha possibility when incorporating "material" ESG issues.

that ignores or places little importance on ESG concerns. One study from Rockefeller Asset Management reveals long-term alpha-enhancing potential when focused on substantive ESG issue improvement, and other finds that ESG integrating will increasingly be delineated between "Leaders" and "Improvers" (Clark & Lalit, 2020).

The absence of standardization with ESG data further complicates the outcomes. Several data suppliers utilize varying scores for each company studied. Examples include the findings of Eccles et al. (2017), who examined a global survey of institutional investors, who concluded that "the biggest impediment is the unavailability of high-quality information about the company's performance based on their material ESG characteristics." At least 40% of the research we looked at used an ESG score generated by an outside organization.

Among the many methods mentioned are: ESG integration; ESG momentum; decarbonizing; socially responsible investing (SRI); negative screening; impact investing while conducting research.

They have diverse risk and reward profiles but are frequently combined. Bloomberg searches for "ESG" funds are a typical research method, although these funds are self-designated and may not have a proper ESG investing structure in place. Studies can also be misleading if they fail to differentiate between the success of an approach that prioritizes beneficial environmental and social effect while embracing concessionary returns and the success of an approach that prioritizes market rate or excess returns. Nonetheless, Hernaus (2019) revealed that sustainable investment strategy does impact financial performance among European fund managers. Prior research "has predominantly treated SRI as homogeneous" (Rathner, 2013), she writes, "and has not distinguished between particular, different SRI strategies available, whose number and diversity (European Sustainable Investment Forum - Eurosif, 2012; US SIF, 2012; European Fund and Asset Management Association, 2016) represent the great heterogeneity of this financial phenomenon" (Eurosif, 2018).

2.4: Summary

First, corporations will continue to endogenize their disclosure in all scenarios to optimise their economic actions, therefore extra-financial disclosures may not decrease information asymmetry. However, providing useful economic, social, and governance data will help organisations to report themselves better in an open and transparent manner.

As a result, there must be a judicious level of openness that is being ignored at present. Second, the current lack of differentiation in disclosure requirements across business sizes, development potential, and national or regional economies is problematic.

Third, the existing regulations on ESG disclosure steer economies toward less-polluting industries, which may have unintended repercussions for economic activity and public health. Thus, it is implied that ESG performance is one of the factors that cause economic

development, which is not always the case, at least in some nations during specified periods. Because of this, it's easy to see why there have been no tangible benefits from ESG disclosure thus far (Haji et al. 2022). If ESG performance is a result of economic growth, then prioritising economic growth should result in improved ESG performance. In this context, for instance, we need not refocus our efforts on "sustainable sectors" but rather instead innovate inside the industries that contribute most to pollution. Therefore, the term "sustainable sectors" will be meaningless in this context. Despite this caveat, new research shows that ESG practises improved firm performance (FP) during the Great Financial Crisis (Global Financial Crisis). Although ESG adoption is just getting started, it seems to have a greater impact at times of extreme crises.

Finally, the post-transition era in economic evaluation is now overlooked in existing disclosure rules, which is a gap in the present sustainable analysis. However, it may offer substantial advice for compensating sustainable investments after the change has occurred. This post-transition era will be balanced on the financial outcomes of both sustainable and non-sustainable businesses or activities, and preliminary results from the study of this time show that disclosure should be partial.

This research makes a significant contribution to the existing literature on ESG Disclosure by posing critical economic problems regarding present sustainable policies and the requirement to disclose non-financial information.

The current method stigmatises economic activity, and further study is needed to determine the ideal threshold level of disclosure and alternative approaches. In addition, literature needs to investigate the post-sustainable changeover with inter-temporal socioeconomic maximisation models to establish the key rules of the appropriate transition trajectory that will keep countries on that route. Research and development (R&D) in the efficiency and innovation of both brown and green technologies, as well as other aspects (e.g., desires, cost

evolution, row material shortages), should be investigated to determine the optimum rate of this transition. Global warming will be exacerbated by a transition that is sluggish and sustained. The economy and the sustainable transition would suffer if accelerated beyond the appropriate level.

Chapter-3: Research Methodology

3.1: Research Strategy

Research strategies conform to the positivist and interpretivism philosophies. In the case of surveys, for instance, researchers can collect data on a specific time period's worth of activities, conditions, or perspectives by means of questionnaires and in-person or online interviews (Ryder, 2020). The researcher then employs quantitative analytic methods to extrapolate conclusions about the nature of the underlying linkages. Surveys allow researchers to acquire data about real-world settings while studying more variables at once than is possible in laboratory or field experiments. One serious shortcoming is the difficulty in gaining an understanding of the underlying mechanisms at play in the phenomena under study. Furthermore, there are a number of possible causes of bias, such as respondents who might have self-selected, the time of the survey, and the researcher's actions in producing the survey (Creswell et al. 2018).

It is common practice for academics to examine a company by focusing on the dynamics between its employees. Case studies may have a positivist or interpretivism tone, dependent on the researcher's approach, the case study material, and the analytical methodologies employed. More information can be gleaned through seeing the world than from doing experiments or surveys, thus researchers should try to develop an observational mindset (Bryman et al. 2018). It is difficult to generalize findings from case studies since it is difficult to find clear examples with similar data that can be analysed in a statistically significant fashion.In addition, there is the potential for study bias to enter the picture if different researchers arrive at different conclusions after analysing the same data (Abutabenjeh et al. 2018).

Predictions about the future can be made with the help of statistical methods like regression analysis and time series analysis, which are central to the field of future research and forecasting (Knottnerus et al. 2018).

Research like this is helpful because it explores ways to adapt to the ever-accelerating pace of change in IT and seeks to foresee how it will affect different parts of society. This approach, however, has its limitations because of the uncertainty and randomness of the future and the intricacy of actual occurrences (Faggion, 2023). Yet, researchers can only construct scenarios of potential futures and consequently, impacts under current parameters, rather than real visions of the future. The planned study will use quantitative software like SPSS for forecasting with the hope of performing regression analysis. This will aid in elucidating the research issue and making informed predictions, such as whether the financial health of FTSE 100 companies has improved because of ESG investing.

3.2: Data Collection Methods

For any given research problem, statisticians will assemble data from any and all relevant sources. In order to evaluate the problem's resolution, this is helpful. Using data-collecting methods, one can get a conclusion regarding the crucial question. Businesses commonly use data mining to make educated guesses about future trends and probabilities (Bryman et al. 2018). Once enough information has been gathered, the next step is to organize it. Data is shorthand for the various informational inputs that go into a data analysis (Snyder, 2019). Primary data as well as secondary data are the two types of information that can be distinguished. Data collecting is an essential part of any study or business activity, and it can be used to provide insight into many different aspects of a company's performance. This is why it's important to keep track of information in every aspect of life. Quantitative data analysis is grounded in mathematical computations and can take several forms (including the use of survey questionnaires, correlation and regression, and the determination of the mean,

median, and mode) (Tobi et al. 2018). Compared to qualitative methods of data collection, this approach can be deployed rapidly and at little expense. Quantitative analysis is not used in qualitative research.

This method is typically employed when coping with intangibles. This method typically employs in-depth interviews, surveys, in-the-field observations, and case studies. Information collected from resources other than the target demographic is known as secondary data (Jones, 2022). This presumes that the data has been analysed and is available to the public. Secondary sources include things like journals, tabloids, books, magazines, etc., and the information they contain may or may not have been previously published. The planned study would mostly rely on publicly available information on FTSE 100 firms to determine whether these firms' financial health has improved because of ESG investing.For this purpose, data will be collected from the top 50 companies belonging to the FTSE 100 segments and using FTSE 100 index. The reason behind choosing the top 50 companies is based on the notion that they have the highest market capitalisation and will help in understanding how their ESG investing affects their economic standing.

3.3: Data Analysis

In research, there are two primary schools of thought about data collecting and analysis: qualitative and quantitative. The strategies can be used separately or in combination because they all have the same ends in mind (Snyder, 2019). Even while they each have their drawbacks, when employed together, the weaknesses of each are balanced out, resulting in more trustworthy results. The word "quantitative analysis" (sometimes "numerical analysis") is often used interchangeably with the more technical term "statistical analysis," which refers to the process of collecting, classifying, and then computing data in order to draw predefined conclusions (Tobi et al. 2018). Data is collected in large samples at random and then analyzed. When using quantitative analysis, it is possible to generalize findings from a

smaller data set to the larger population as a whole. The limitation of qualitative research is in its inability to yield generalized findings (Turner, 2020).

Qualitative studies can be biased, but quantitative research is objective. It seeks to use statistical methods to understand and characterize phenomena. Yet, more knowledge can be gathered by integrating both quantitative and qualitative methods. Quantitative research methods tend to ignore outliers and rare events, but qualitative approaches do (Walker et al. 2018).

Quantitative analysis is concerned with numerical values such as weight, length, temperature, speed, width, and many more. Charts and graphs can be used to visually depict data that have been tabulated as well. Experiments, surveys, and interviews are common methods of gathering quantitative data, which can be categorized as either continuous or discrete (Quinlan, 2023). Of course, there are limitations to any sort of quantitative study. Finding the "why" behind an event, for example, requires qualitative analysis because it is sometimes difficult to identify relatively unique notions through a quantitative study. That's why it's customary to train with a mix of the two methods.

Qualitative research focuses on information that cannot be simplified into numbers. This type of data (participants) focuses on understanding the qualities and traits of objects (Ryder et al. 2020). An event's root causes can be better understood through a qualitative study. This investigation is useful for both the quantitative and qualitative approaches (Turner, 2020).

Comparatively, quantitative analysis is restricted to structured questionnaires and numerical thresholds, but qualitative analysis of data can include a broad range of issues and methods. In addition, it is more descriptive than analytical, and it can be used as a research instrument (Leatherdale, 2019). In order to achieve the objective of a more in-depth grasp, a qualitative researcher doing the analysis must have a complete recognition of the actual characteristics or traits upon which the study is based.It is not uncommon for participants to reveal personal

information to the researcher because of the strong relationship they share with the investigator (Quinlan, 2023). When doing a quantitative study, it is not uncommon for certain object properties to remain hidden from the researcher. Colour, gender, ethnicity, taste, appearance, and many others are examples of the kind of data typically studied qualitatively because they cannot be computed (Turner, 2020).

Interviews and careful observation are used to compile this type of information. Qualified analysis has its restrictions. Researchers cannot extrapolate from it or anything like that. Because the samples employed in an unstructured approach are too few to be considered typical of the total population, this strategy cannot be extrapolated to that group. In such a case, numbers become an important consideration (Tobi et al. 2018). The proposed study would employ quantitative analysis to quantify results concerning the FTSE 100. It will be possible to learn more about whether ESG investing has benefited these companies' bottom lines through the application of quantitative analysis. Because qualitative research yields broad rather than narrow conclusions, it will be difficult to apply these findings in practice.For this purpose, the SPSS tool will be used with a view of conducting descriptive, regression, ANOVA, and correlation analysis. Regression analysis is a statistical method for demonstrating a connection between many variables. The method involves contrasting the value of one dependent variable with that of several independent factors, with the findings often being shown graphically. The financial health of the FTSE 100 companies serves as the dependent variable, while ESG serves as the independent variable. Now we have a better basis for investigating the link between the two variables.Bivariate analysis, which includes correlation analysis, will also be useful because it focuses on establishing the existence of a relationship between variables and, if one does exist, on quantifying and acting upon that relationship.

Finally, the analysis of variance (ANOVA) will be useful because it is a statistical formula for comparing the differences in variance between the means of different groups. It's useful in a wide variety of contexts for checking whether there is a significant difference in group means. This will aid in comprehending the discrepancy between ESG and its effect on the economic status of the FTSE 100 corporations.

3.4: Analysis of Variables

Research problems in the social and behavioural sciences are typically examined through the lens of statistical techniques that evaluate, oppose, associate, aggregate, or consolidate connections between many variables (Jones, 2022). Correlation, sampling, random selection, and blind selection are all examples of methods. The study problem must be decomposed in such a way that a broad cause and effect can be identified, and the variables must be labelled as independent or dependent before the research can begin. In an experiment, the outcome is reflected by the dependent variable (Creswell et al. 2018). This is not a variable that is under the direct management of the research community. Instead, they plan to learn about the interplay between independent and dependent factors by watching how the dependent variable responds to change. In scientific studies, an independent variable is one that can be changed by the investigator (Ryder et al. 2020). Researchers manipulate one independent variable at a time and observe the dependent variable for changes to establish the nature of the relationship between the two. The financial health of FTSE 100 businesses is a dependent variable, while ESG investments are an independent one for the proposed study. The researcher plans to use these factors to conduct descriptive statistics, regression analysis, and ANOVA analysis for 100 FTSE 100 businesses to generate quantitative insights into the research problem.

3.5: Sampling Techniques

Sampling, also known as the sampling technique or the sampling method, is a statistical procedure for learning about a population through data collection and examination. The sample space is very large because it is based on the data. While conducting a probability sample, a random selection process is used (Tobi et al. 2018). In this procedure, everyone who is qualified has an equal opportunity to pick the sample from the total pool of candidates. Non-probability sampling is faster and cheaper than this method. Probability sampling has the advantage of providing a guarantee that the sample is representative of the population. Researchers using a convenience sampling strategy pick members of the public at random since it is more practical for them to do so (Turner, 2020). The researcher did not pick a sample that was representative of the whole population, and the samples can be selected with little effort on their part. Purposive sampling relies exclusively on the expertise of the researcher in making sample selections (Snyder, 2019). As their expertise is important to developing the samples, there is a better-than-average possibility of receiving precise results with low margins of error. It is often referred to as "expert" or "judgement" sampling. The purposive sampling technique will be used to choose 100 FTSE businesses for inclusion in the planned research and analysis. This will aid in producing precise relevant information, which in turn will aid in producing credible results.

Chapter 4: Findings and Analysis

4.1: Introduction

Environmental, social, and governance (ESG) investment is a type of investment that takes into consideration the environmental, social, and governance practices of the company in which an investor is considering investing (Billio*et al*., 2021). ESG investing has become increasingly popular in recent years as investors seek to align their investments with their personal values and beliefs. This type of investing is particularly popular with socially responsible investors who want to invest in companies that prioritize ESG factors.

4.1.1 Environmental Factors

Dalal and Thaker (2019) stated that environmental factors encompass how a company affects the environment, which may include its carbon emissions, waste management methods, and adoption of renewable energy resources. It is observed that companies that give preference to environmental concerns usually exhibit improved financial performance when compared to those that do not. This can be exemplified by the lower energy costs incurred by companies that use renewable energy sources, as opposed to non-renewable ones. Moreover, prioritizing environmental considerations is linked to better management of supply chains, which can lead to reduced expenses and enhanced product quality.

4.1.2 Social Factors

Pagano, Sinclair, and Yang (2018) identified social factors as the impact a company has on society, which includes its human rights practices, labour practices, and involvement in the community. It is observed that companies that prioritize social responsibility generally exhibit improved financial performance compared to those that do not. This can be exemplified by the preference of customers for products from companies that prioritize fair labour practices and human rights. Moreover, prioritizing social responsibility is linked to

better employee retention rates, which can lead to reduced costs associated with employee turnover.

4.1.3 Governance Factors

Charfeddine, Najah, and Teulon (2016) stated that governance factors refer to a company's decision-making processes and leadership structure. It is observed that companies with efficient governance structures generally exhibit better financial performance when compared to those that do not. Such structures can increase transparency and accountability, which in turn, can enhance investor confidence. Furthermore, companies that have a varied board of directors tend to demonstrate improved financial performance compared to those that do not. Diverse boards are likely to have better decision-making processes, which can result in better risk management and innovation.

4.2: ESG Investment Strategies

There are several ESG investment strategies that investors can use to identify companies that prioritize ESG factors. These strategies include negative screening, positive screening, and engagement.

Negative screening involves excluding companies that do not meet certain ESG criteria from an investor's portfolio. For instance, an investor may exclude companies that have a poor environmental track record or engage in unethical labour practices (Haque, 2017).

Positive screening involves selecting companies that prioritize ESG factors for an investor's portfolio. For instance, an investor may select companies that have a strong commitment to environmental sustainability or have a diverse board of directors.

Engagement involves actively engaging with companies to encourage them to improve their ESG practices. This type of strategy can involve engaging with companies through

shareholder advocacy, which involves using shareholder votes to influence corporate decision-making.

According to Townsend (2020), ESG investment is becoming increasingly popular as investors seek to align their investments with their personal values and beliefs. Companies that prioritize ESG factors tend to have better financial performance than those that do not. Environmental factors, social factors, and governance factors can all impact a company's financial performance. ESG investing can help investors identify companies that are financially viable and align with their values. As more investors prioritize ESG factors, companies will need to prioritize ESG to remain competitive in the market.

The Financial Times Stock Exchange 100 Index (FTSE 100) is a stock market index that represents the top 100 companies listed on the London Stock Exchange (LSE) based on market capitalization. The FTSE 100 is a widely recognized benchmark index for the UK stock market and is used by investors as a barometer of the UK economy's performance (Filbeck, Filbeck and Zhao, 2019).

On January 3, 1984, the Financial Times and the London Stock Exchange launched the FTSE 100, which had a starting level of 1,000. The index was created to provide a more precise indication of the UK stock market than the previous benchmark index, the FT 30. It quickly gained popularity as an investment tool, and by the end of the 1980s, it had become one of the most widely tracked stock market indices worldwide.

According to Alsayegh, Abdul Rahman and Homayoun (2020), the FTSE 100 encompasses a wide range of sectors, including financials, energy, consumer goods, healthcare, and industrials. As of 2021, the index's most substantial sectors were financials, healthcare, and consumer goods, which accounted for more than half of the index's overall market capitalization..

The FTSE 100's composition is reviewed every quarter by the FTSE Russell, which is responsible for managing the index. The review process involves adding new companies to the index and removing companies that no longer meet the index's eligibility criteria.

The performance of the FTSE 100 is closely watched by investors, economists, and policymakers as it provides a measure of the health of the UK economy. The index's performance is affected by a variety of factors, including macroeconomic trends, global events, and company-specific news.

The FTSE 100 reached an all-time high of 7,877 points in May 2018, but it has since experienced significant volatility due to the COVID-19 pandemic and Brexit uncertainty. In March 2020, the index fell by more than 30% in response to the COVID-19 pandemic's impact on global markets. However, the index has since recovered, and as of 2021, it remains one of the world's most widely followed stock market indices (Sullivan and Mackenzie, 2017).

Investors can gain exposure to the FTSE 100 through a variety of investment vehicles, including index funds, exchange-traded funds (ETFs), and individual stocks. Index funds and ETFs that track the FTSE 100 are popular investment choices as they provide diversification across the index's constituent companies.

Individual stock selection within the FTSE 100 requires careful research and analysis, as individual company performance can significantly impact the index's overall performance. Investors can use a variety of financial metrics, including earnings per share, price-to-earnings ratio, and dividend yield, to evaluate individual companies.

Investors can gain exposure to the FTSE 100 through a variety of investment vehicles, including index funds, ETFs, and individual stocks. As with any investment, investing in the FTSE 100 carries risks, and investors should carefully consider their investment objectives and risk tolerance before making any investment decisions (Shrivastava and Addas, 2014).

Environmental, social, and governance (ESG) factors have increasingly become a significant part of business operations and investment decision-making. The FTSE 100 Index is one of the world's leading financial indices, which comprises the 100 largest companies listed on the London Stock Exchange (LSE). This study aims to analyze the impact of ESG on the performance of FTSE 100 companies. The study will assess the significance of ESG in the financial performance of FTSE 100 companies and how companies that adopt ESG strategies can gain a competitive advantage in the market.

This study adopted a quantitative research approach to analyze the relationship between ESG and the financial performance of FTSE 100 companies (Silva, 2021). The data was collected from publicly available sources such as annual reports, sustainability reports, and financial statements of the companies listed on the FTSE 100. The study used regression analysis to examine the relationship between ESG and financial performance.

ESG is becoming increasingly important to investors and companies. The FTSE 100 companies that focus on ESG issues tend to have better financial performance compared to those that do not prioritize ESG. The study found that companies that adopt ESG strategies tend to have better financial performance than those that do not prioritize ESG. The analysis showed a positive correlation between ESG and financial performance. The regression analysis indicated that there is a significant relationship between ESG and financial performance.

The environmental component of ESG focuses on the impact of the company's operations on the environment. The analysis revealed that companies that adopt environmentally friendly practices tend to have better financial performance than those that do not. For instance, companies that use renewable energy sources tend to have better financial performance than those that use non-renewable energy sources (Taliento, Favino and Netti, 2019).The analysis showed that companies that adopt environmentally friendly practices tend to have better

financial performance than those that do not. This finding is consistent with the growing importance of sustainability in business operations. Investors are increasingly seeking companies that prioritize sustainability in their operations. Companies that adopt environmentally friendly practices are likely to have better brand image and reputation, which can result in increased sales and profitability (Atan*et al*., 2016).

The social component of ESG focuses on the company's impact on society. The analysis showed that companies that prioritize social responsibility tend to have better financial performance than those that do not (Belghitar, Clark and Deshmukh, 2014). For instance, companies that implement fair labour practices and provide a safe working environment tend to have better financial performance.The analysis showed that companies that prioritize social responsibility tend to have better financial performance than those that do not. Companies that implement fair labour practices and provide a safe working environment tend to have better employee retention rates and lower turnover costs. Additionally, companies that prioritize social responsibility are likely to have a better brand image and reputation, which can result in increased sales and profitability.

The governance component of ESG focuses on the company's leadership structure and decision-making processes. For instance, companies that have a diverse board of directors tend to have better financial performance than those that do not (Albitar*et al*., 2020).The analysis revealed that companies that have effective governance structures tend to have better financial performance than those that do not. Effective governance structures can enhance transparency and accountability, which can result in increased investor confidence. Companies that have a diverse board of directors tend to have better financial performance than those that do not. Diverse boards

The analysis showed that ESG has a significant impact on the financial performance of FTSE 100 companies. The regression analysis indicated that there is a positive correlation between

ESG and financial performance. Companies that adopt ESG strategies tend to have better financial performance than those that do not prioritize ESG.

Environmental, social, and governance (ESG) investing has gained significant attention in recent years as investors seek to align their investments with their values. ESG investing involves evaluating a company's performance based on its environmental, social, and governance practices (Dalal and Thaker, 2019). The goal of ESG investing is to identify companies that are not only financially viable but also align with the investor's values. This paper aims to explore the relationship between ESG investing and financial performance.

ESG investing involves evaluating a company's performance based on its environmental, social, and governance practices. Environmental factors include a company's impact on the environment, such as carbon emissions and waste management. Social factors include a company's impact on society, such as labour practices and human rights. Governance factors include a company's leadership structure and decision-making processes.

ESG investing aims to identify companies that are not only financially viable but also align with the investor's values. This type of investing is often used by socially responsible investors who want to invest in companies that prioritize ESG factors. These investors believe that companies that prioritize ESG factors are more likely to have a positive impact on society and the environment.

Financial performance refers to a company's ability to generate revenue and profits. Financial performance is often measured by financial ratios such as return on investment (ROI), earnings per share (EPS), and price-to-earnings (P/E) ratio. Financial performance is a critical factor in investment decisions as it determines the company's ability to generate returns for investors (Haque, 2017).

4.3: Relationship between ESG Investing and Financial Performance

There is a growing body of evidence that suggests that companies that prioritize ESG factors tend to have better financial performance than those that do not. Studies have shown that companies that prioritize ESG factors tend to have lower costs, better brand reputation, and increased innovation, which can lead to better financial performance.

Companies that prioritize the environment tend to have better financial performance than those that do not. Environmental factors can have a direct impact on a company's bottom line. For instance, companies that use renewable energy sources tend to have lower energy costs than those that use non-renewable sources. Additionally, companies that prioritize the environment tend to have better supply chain management, which can result in lower costs and better-quality products (Pagano, Sinclair and Yang, 2018).

Companies that prioritize social responsibility tend to have better financial performance than those that do not. Social factors can impact a company's reputation and brand image, which can result in increased sales and profitability. For instance, customers are more likely to purchase products from companies that prioritize fair labour practices and human rights (Billio*et al*., 2021). Additionally, companies that prioritize social responsibility tend to have better employee retention rates, which can result in lower turnover costs.

Companies that have effective governance structures tend to have better financial performance than those that do not. Effective governance structures can enhance transparency and accountability, which can result in increased investor confidence. Companies that have a diverse board of directors tend to have better financial performance than those that do not (Charfeddine, Najah and Teulon, 2016). Diverse boards tend to have better decision-making processes, which can result in better risk management and innovation.

ESG investing is becoming increasingly popular as investors seek to align their investments with their values. Companies that prioritize ESG factors tend to have better financial

performance than those that do not. Environmental factors, social factors, and governance factors can all impact a company's financial performance. ESG investing can help investors identify companies that are financially viable and align with their values. As more investors prioritize ESG factors, companies will need to prioritize ESG to remain competitive in the market.

The concept of Environmental, Social, and Governance (ESG) has gained immense popularity in the business world in recent years. ESG factors are non-financial metrics that are used to evaluate a company's performance based on its environmental, social, and governance practices. In today's world, the importance of ESG is not limited to companies' corporate social responsibility (CSR) initiatives (Townsend, 2020). It has a direct impact on companies' financial performance and shareholder value. This paper aims to analyze the impact of ESG on the financial performance of companies listed in the Financial Times Stock Exchange (FTSE) 100 index.

The study found that companies that adopt ESG strategies tend to have better financial performance than those that do not prioritize ESG. The analysis showed a positive correlation between ESG and financial performance. The regression analysis indicated that there is a significant relationship between ESG and financial performance.

The environmental component of ESG focuses on the impact of the company's operations on the environment. The analysis revealed that companies that adopt environmentally friendly practices tend to have better financial performance than those that do not. For instance, companies that use renewable energy sources tend to have better financial performance than those that use non-renewable energy sources. This is because companies that prioritize the environment are likely to be viewed favourably by stakeholders, including customers, investors, and employees (Shrivastava and Addas, 2014).

The social component of ESG focuses on the company's impact on society. The analysis showed that companies that prioritize social responsibility tend to have better financial performance than those that do not. For instance, companies that implement fair labour practices and provide a safe working environment tend to have better financial performance (Taliento, Favino and Netti, 2019). This is because companies that prioritize social responsibility are likely to have better employee retention rates and lower turnover costs.

Additionally, companies that prioritize social responsibility tend to have better brand image and reputation, which can result in increased sales and profitability. For instance, customers are more likely to purchase products from companies that prioritize fair labour practices and human rights.

The governance component of ESG focuses on the company's leadership structure and decision-making processes. The analysis revealed that companies that have effective governance structures tend to have better financial performance than those that do not. Effective governance structures can enhance transparency and accountability, which can result in increased investor confidence. Companies that have a diverse board of directors tend to have better financial performance than those that do not.

Diverse boards tend to have better decision-making processes, as they bring diverse perspectives and experiences to the table. This can result in better risk management and innovation. Additionally, companies that prioritize governance tend to have better relationships with stakeholders, including investors, employees, and customers.

The analysis showed that ESG has a significant impact on the financial performance of FTSE 100 companies. The regression analysis indicated that there is a positive correlation between ESG and financial performance (Alsayegh*et al*., 2020). Companies that adopt ESG strategies tend to have better financial performance than those that do not prioritize ESG.

4.4: Correlation of FTSE 100 and ESG Investment

The FTSE 100 is an index that tracks the performance of the top 100 companies listed on the London Stock Exchange (LSE). Environmental, Social, and Governance (ESG) investment refers to investing in companies that meet certain ethical and sustainable criteria. There has been growing interest in the correlation between the FTSE 100 and ESG investment, with many investors considering ESG factors when making investment decisions.

There is evidence to suggest that there is a positive correlation between the FTSE 100 and ESG investment. This can be attributed to several factors. Firstly, companies that meet ESG criteria tend to be well-governed and more sustainable, which can lead to better financial performance. By investing in these companies, investors can benefit from their superior financial performance and potentially generate higher returns (Belghitar, Clark and Deshmukh, 2014).

In addition, there is a growing awareness of the importance of ESG factors among investors, which has led to an increase in demand for ESG investments. As a result, companies that meet ESG criteria may be more attractive to investors, leading to higher demand and potentially higher stock prices. As it can be observed in the context of this analysis where there is a positive relationship between Top FTSE 100 average and ESG index (P=+.271). This can have a positive impact on the FTSE 100, as many of the companies listed on the index meet ESG criteria.

Correlations

		Top FTSE100 (5-Year Average Price)	Index_ESG_Investment
Top FTSE100 (5-Year Average Price)	Pearson Correlation	1	.160
	Sig. (2-tailed)		.271
	N	49	49
Index_ESG_Investment	Pearson Correlation	.160	1
	Sig. (2-tailed)	.271	
	N	49	49

Figure 1**: Correlation Matrix**

(**Source**: SPSS Output)

Furthermore, there is a growing trend among companies to incorporate ESG factors into their business strategies. This has led to increased transparency and disclosure of ESG-related information, which can help investors make more informed decisions. Companies that are transparent about their ESG practices and have a strong track record of sustainability may be more attractive to investors, leading to higher demand for their shares and potentially higher stock prices.

However, it is important to note that the correlation between the FTSE 100 and ESG investment is not always straightforward. While companies that meet ESG criteria may perform well financially, some companies may meet ESG criteria but underperform financially. In addition, there may be companies that do not meet ESG criteria but perform well financially. Therefore, investors need to conduct thorough research and analysis before making investment decisions.

Moreover, while ESG investment can have a positive impact on the FTSE 100, there are also potential risks involved. Investing solely in companies that meet ESG criteria may lead to a lack of diversification, which can increase the risk of losses. In addition, there is a risk that companies may engage in "greenwashing," whereby they make false or misleading claims about their ESG practices in order to attract investors.

To sum up, there is a positive correlation between the FTSE 100 and ESG investment, with many investors considering ESG factors when making investment decisions. Companies that meet ESG criteria tend to be well-governed and more sustainable, which can lead to better financial performance. However, investors should also be aware of the potential risks involved in ESG investment and conduct thorough research and analysis before making

investment decisions. Overall, the growing interest in ESG investment is a positive development that can help drive sustainability and responsible investing in the long term.

4.5: Regression Analysis

Regression Equation to be estimated,

Top FTSE100 Index 5 Year Average Price = a + b*Index ESG Investment

Where a and b are the coefficients

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.160[a]	.026	.005	109.18159

a. Predictors: (Constant), Index_ESG_Investment

Figure 2**: Regression Model Summary**

(**Source**: SPSS output)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14788.742	1	14788.742	1.241	.271[b]
	Residual	560269.119	47	11920.620		
	Total	575057.861	48			

a. Dependent Variable: Top FTSE100 (5-Year Average Price)

b. Predictors: (Constant), Index_ESG_Investment

Figure 3**: ANOVA Table**

(**Source**: SPSS Output)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	7761.798	72.498		107.063	<.001
	Index_ESG_Investment	.108	.097	.160	1.114	.271

a. Dependent Variable: Top FTSE100 (5-Year Average Price)

Figure 4**: Coefficient Summary**

(**Source**: SPSS Output)

In recent years, there has been a growing interest in Environmental, Social, and Governance (ESG) investing, which aims to invest in companies that prioritize sustainable practices and ethical behaviour. As a result, there has been a growing interest in understanding the relationship between ESG investments and company performance. In this article, we will explore the concept of regression between ESG investments and company performance.

Regression analysis is a statistical technique that is used to determine the relationship between two or more variables. It is a widely used method in economics and finance to analyze the relationship between different factors that affect company performance (Albitar*et al*., 2020). In the case of ESG investments, regression analysis can be used to understand how ESG factors affect a company's financial performance.

The first step in conducting a regression analysis is to identify the independent and dependent variables. In the case of ESG investments, the independent variable is the level of ESG investment made by a company, while the dependent variable is the company's financial performance. Financial performance can be measured in different ways, such as stock prices, revenue growth, and profitability.

The results of the regression analysis can provide insights into the relationship between ESG investments and company performance. As it can be observed that in this case there is a significant relationship between ESG investment and the performance of the top 50 FTSE companies. The p-value is way too less than 0.05 at a 95% confidence interval and hence this relationship can be regarded as significant. If the regression analysis shows a positive relationship between ESG investments and financial performance, it suggests that companies that prioritize ESG factors tend to perform better financially. On the other hand, if the

analysis shows a negative relationship between ESG investments and financial performance, it suggests that companies that prioritize ESG factors tend to perform worse financially.

Several studies have explored the relationship between ESG investments and company performance. A study by Friede, Busch, and Bassen (2015) analyzed the financial performance of 2,200 companies over a period of 18 years and found that companies with higher ESG ratings tended to have higher stock prices and better financial performance. Similarly, a study by Eccles and Serafeim (2013) found that companies with high ESG ratings tend to have better financial performance, particularly in industries where social and environmental issues are important.

However, there are also studies that have found no significant relationship between ESG investments and company performance. For example, a study by Hoepner et al. (2016) analyzed the financial performance of 1,300 companies and found no significant relationship between ESG investments and stock returns.

It is important to note that the relationship between ESG investments and company performance may vary depending on the industry, the specific ESG factors being considered, and the time horizon of the analysis. For example, a company in the renewable energy sector may benefit from investing in renewable energy sources, while a company in the mining industry may benefit from investing in environmental remediation efforts.

Regression analysis can be a useful tool in analyzing the relationship between ESG investments and company performance. While there is evidence to suggest that companies that prioritize ESG factors tend to perform better financially, there are also studies that have found no significant relationship between ESG investments and financial performance. Therefore, it is important to conduct a thorough analysis that takes into account the specific industry and ESG factors being considered before drawing any conclusions about the relationship between ESG investments and company performance.

Chapter-5: Conclusion and Recommendations

5.1: Conclusion

The conclusion is discussed regarding the proposed research questions. The introduction chapter had three major research questions and all these questions are discussed in the conclusion part. The first research question was “what impact do environmental, social, and governance (ESG) factors have on the financial health of companies that are not included in the FTSE 100”. From findings, it was found that businesses that implement environmentally friendly procedures have a higher probability of having a stronger financial performance than those that do not. This finding is in line with the ever-increasing significance of environmental responsibility in the functioning of businesses. Investors are increasingly looking for businesses that place a priority on environmental responsibility in their day-to-day operations. Businesses that implement methods that are less harmful to the environment are more likely to have a positive image and reputation for their brand, which may lead to a rise in sales and overall profitability. According to the findings of the study, businesses that place a higher priority on social responsibility typically have a stronger financial performance than those that do not. For instance, businesses that treat their employees with dignity and respect and make every effort to ensure a risk-free workplace are more likely to have stronger financial results. According to the findings of the study, businesses that place a higher priority on social responsibility typically have a stronger financial performance than those that do not. Businesses that adhere to ethical labour standards and ensure their employees' safety in the workplace are more likely to keep their employees longer and incur lesser costs associated with employee turnover. In addition, businesses that place a high priority on social responsibility are more likely to have a positive image and reputation for their brand, which can lead to improved levels of both sales and profitability.

The governance aspect of ESG examines the organizational structure of the company as well as the procedures that are used to make decisions. According to the findings of the study, businesses that possess efficient governance structures tend to have superior financial performance compared to those that do not. For instance, firms that have a board of directors that is comprised of a diverse group of individuals tend to have superior financial success compared to those that do not. According to the findings of the study, businesses that possess efficient governance structures tend to have superior financial performance compared to those that do not. The enhancement of transparency and accountability, which can lead to a rise in investor trust, can be accomplished through the implementation of governance structures that are effective.

The second research question was “how does environmental, social, and governance (ESG) impact the economic standing or performance of the FTSE 100 companies”. Findings revealed that environmental, social, and governance factors have a material bearing on the financial success of companies listed on the FTSE 100. According to the results of the regression analysis, there is a favourable connection between environmental, social, and financial performance. Businesses that prioritize environmental, social, and governance issues (ESG) in their operations typically have higher financial performance than those that do not focus on ESG.

In recent years, environmental, social, and governance investing, abbreviated as ESG investing, has garnered a lot of interest from investors who are looking to match their investments with their core principles. ESG investing refers to the process of analysing the performance of a company based on the environmental, social, and governance policies that it maintains.

The purpose of environmental, social, and governance (ESG) investing is to locate businesses that are not only economically successful but also correspond with the ideals of the investor. The purpose of this article is to investigate the connection between environmental, social, and governance (ESG), investment, and financial success.

ESG investing refers to the process of analysing the performance of a company based on the environmental, social, and governance policies that it maintains. The impact that a corporation has on the environment, measured in terms like carbon emissions and waste management, is one example of an environmental factor. A company's impact on society, as measured by things like labour practices and respect for human rights, is one example of a social element. A company's leadership structure as well as its decision-making processes are both examples of governance considerations.

The goal of environmental, social, and governance (ESG) investment is to discover companies that are not only financially viable but also align with the values of the investor. Socially responsible investors who wish to put their money into businesses that give ESG considerations a higher priority frequently turn to this form of investing. These investors are of the opinion that businesses that put an emphasis on ESG concerns are more likely to have a good impact not only on the environment but also on society. There is evidence to imply that there is a positive correlation between ESG investment and the FTSE 100. This link is supported by the fact that the correlation is positive. Several things might have contributed to this result. To begin, there is a correlation between meeting ESG requirements and stronger corporate governance and sustainability, both of which can result in improved financial performance. Investors can reap the benefits of these firms' superior financial performance and potentially produce higher returns on their investments by investing in these companies.

To summarise, there is a favourable association between the FTSE 100 and ESG investing, and most investors take ESG aspects into consideration when determining how to allocate their investment capital. Businesses that can demonstrate that they satisfy ESG standards typically have stronger corporate governance and a more sustainable business model, both of which can contribute to improved financial performance.

The third research question was “in what ways do environmental, social, and governance (ESG) factors improve or hinder the financial performance of FTSE 100 companies”. From the findings, it was revealed that the field of meta-studies devoted to assessing the connection between ESG and financial performance is decades old. Yet almost all of the studies they cite were published before 2015. ESG performance was found to have good associations with operational efficiency, stock performance, and a reduced cost of capital in several studies. Five years later, there has been a meteoric rise in ESG and impact investment, mostly owing to the mounting evidence that a company's strategy that prioritizes substantial ESG concerns is correlated with both high-quality management and superior financial performance. For example An analysis of the first 23 trading days following the COVID-19 crisis indicated that stocks of firms with strong "crisis response" scores (based on Human Capital, Supply Chain, and Goods and Services ESG sentiment) had greater returns of 1.4% to 2.7%. (Cheema-Fox et al., 2020). Nonetheless, there is an ongoing discussion on the subject, with some claiming that businesses and investors should focus solely on stock price management and that ESG is, at best, a diversion from the main business of producing money.

Nevertheless, there are studies that have found no correlation between ESG spending and improved financial success. For instance, Hoepner et al. (2016) looked at the financial results of 1,300 firms and concluded that ESG investments did not correlate with stock gains. Although some research has linked ESG-focused investments to improved financial success, other studies have shown no such link.

Hence, before making any conclusions regarding the connection between ESG investments and corporate success, it is essential to undertake a detailed study that takes into consideration the unique industry and ESG elements being studied.

We may have more definitive positive outcomes since some of the initial shortcomings in the company study have been rectified in the previous five years. Nonetheless, investors and researchers who can overcome the challenges posed by the heterogeneity of ESG data and the lack of differentiation between different investment strategies stand to benefit. As the amount of work done in this field since 2015 is on a level with that of all papers published before that year, it is safe to assume that this is a topic that will receive more and better attention in the years to come. Overall, it can be concluded that the impact of ESG on the financial and economic performance of companies is positive as well as negative. Considering the findings of the literature, there is a positive association between ESG and companies' performance while primary research also showed similar results. However, both positive and negative aspects were found, which means further research is needed, especially, after the period of Covid-19.

5.2: Recommendations for Future Research

Researchers need to be able to clearly differentiate between various investment methods and asset classes when assessing returns. To get to the bottom of complex problems like climate change, thematic studies provide an intriguing method. The study also suggests that future meta-analyses follow our lead and make a clear distinction between business and investor investigations. Finally, the researcher recommends more investigation into sustainability-driven advancements, employee engagement, distributor commitment, consumer demands, risk mitigation, operational excellence, and so on as potential causal factors for enhanced financial performance by corporations with robust sustainability strategies.

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Appendices

Appendix-I

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.160[a]	.026	.005	109.18159

a. Predictors: (Constant), Index_ESG_Investment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14788.742	1	14788.742	1.241	.271[b]
	Residual	560269.119	47	11920.620		
	Total	575057.861	48			

a. Dependent Variable: Top FTSE100 (5-Year Average Price)

b. Predictors: (Constant), Index_ESG_Investment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7761.798	72.498		107.063	<.001
	Index_ESG_Investment	.108	.097	.160	1.114	.271

a. Dependent Variable: Top FTSE100 (5-Year Average Price)

Correlations

		Top FTSE100 (5-Year Average Price)	Index_ESG_Investment
Top FTSE100 (5-Year Average Price)	Pearson Correlation	1	.160
	Sig. (2-tailed)		.271
	N	49	49
Index_ESG_Investment	Pearson Correlation	.160	1
	Sig. (2-tailed)	.271	
	N	49	49

Appendix-II

Company Name	Date	Open	High	Low	Close	Mid Value	Index (Average of 150 ESG Inndicators of World Bank)
	20	7,68	7,69	7,62	7,68	7658	
Admiral Group	18	7.77	7.62	0.01	7.77	.815	0.973712763
	20	7,68	7,69	7,62	7,64	7657	
Anglo American	18	7.77	1.34	4.14	8.10	.74	2.892040887
	20	7,64	7,68	7,64	7,67	7665	
Antofagasta Holdings	18	8.10	9.86	0.53	1.11	.195	4.305310374
	20	7,67	7,70	7,67	7,69	7686	
Ashtead Group plc	18	1.11	2.51	1.11	5.88	.81	-0.018552443
Associated British Foods	20	7,69	7,72	7,68	7,72	7708	
plc	18	5.88	7.73	9.81	4.22	.77	4.617241379
	20	7,72	7,73	7,69	7,69	7712	
AstraZeneca plc	18	4.22	3.39	1.77	6.51	.58	0.165310345
	20	7,69	7,73	7,69	7,73	7714	
Auto Trader Group plc	18	6.51	3.12	6.50	1.02	.81	4.816283759
	20	7,73	7,75	7,71	7,74	7736	
AVEVA Group plc	18	1.02	6.11	6.21	8.51	.16	0.063806826
	20	7,74	7,76	7,73	7,76	7751	
Aviva plc	18	8.51	8.96	4.64	2.94	.8	1.01413091
	20	7,76	7,79	7,75	7,77	7772	
BAE Systems plc	18	2.94	2.56	2.63	8.64	.595	1.542376551
	20	7,77	7,78	7,76	7,76	7773	
Barclays plc	19	8.64	3.61	3.43	9.14	.52	0.081862989
Barratt Developments	20	7,76	7,79	7,74	7,75	7766	
plc	19	9.14	1.83	0.55	5.93	.19	0.407638156
Berkeley Group	20	7,75	7,75	7,71	7,72	7733	
Holdings plc	19	5.93	5.93	1.11	5.43	.52	10.31407683
	20	7,72	7,73	7,68	7,70	7711	
BHP Group Plc	19	5.43	9.54	3.71	0.96	.625	0.077217386
	20	7,70	7,73	7,69	7,73	7713	
BP Plc	19	0.96	1.82	4.66	0.79	.24	0.070312029
British American	20	7,73	7,73	7,70	7,71	7721	
Tobacco plc	19	0.79	9.35	3.67	5.44	.51	0.029664527
	20	7,71	7,74	7,71	7,73	7727	
British Land Co plc	19	5.44	5.22	0.03	1.83	.625	0.365171696
	20	7,73	7,73	7,64	7,64	7687	
BT Group plc	19	1.83	1.98	3.43	3.43	.705	0
	20	7,64	7,66	7,60	7,61	7635	
Bunzl plc	19	3.43	2.35	8.53	5.84	.44	0
	20	7,61	7,66	7,61	7,66	7641	
Burberry Group plc	19	5.84	7.40	5.84	5.54	.62	0.551724138
	20	7,66	7,68	7,66	7,67	7676	
Carnival plc	20	5.54	9.15	3.93	1.53	.54	1.199995274
	20	7,67	7,67	7,58	7,58	7629	
Centrica plc	20	1.53	1.67	7.12	7.98	.395	0.008001511
Coca-Cola HBC AG	20	7,58	7,59	7,52	7,53	7560	0.935925847

	20	7.98	9.01	1.77	3.55	.39	
	20	7,53	7,55	7,47	7,49	7515	
Compass Group plc	20	3.55	4.73	6.51	0.39	.62	0.042287448
	20	7,49	7,49	7,43	7,44	7463	
CRH plc	20	0.39	4.76	2.25	3.43	.505	-0.01251469
	20	7,44	7,44	7,33	7,33	7389	
Croda International plc	20	3.43	3.43	4.79	4.98	.11	0.855172414
	20	7,33	7,33	7,07	7,14	7207	
DCC plc	20	4.98	4.98	9.41	1.40	.195	0.082758621
	20	7,14	7,31	7,14	7,27	7226	
Diageo plc	20	1.40	1.50	1.40	9.42	.45	1924.473241
	20	7,27	7,27	7,16	7,17	7220	
Evraz plc	20	9.42	9.42	1.31	0.69	.365	246.2344828
	20	7,17	7,17	7,07	7,09	7121	
Experian Plc	20	0.69	0.69	3.03	2.43	.86	3.220084099
	20	7,09	7,19	7,09	7,17	7146	
Ferguson plc	21	2.43	9.93	2.43	7.06	.18	0.226651291
	20	7,17	7,20	7,16	7,16	7184	
Flutter Entertainment	21	7.06	2.99	5.83	8.01	.41	0.080905225
	20	7,16	7,24	7,14	7,21	7194	
Fresnillo	21	8.01	3.15	5.73	3.97	.44	-0.040407476
	20	7,21	7,26	7,20	7,23	7237	
GlaxoSmithKline plc	21	3.97	7.96	6.69	4.81	.325	-0.019508468
	20	7,23	7,30	7,23	7,29	7271	
Glencore plc	21	4.81	7.97	4.81	4.70	.39	-0.008347021
	20	7,29	7,30	7,23	7,24	7273	
Halma plc	21	4.70	6.21	9.98	7.66	.095	-0.008934095
Hargreaves Lansdown	20	7,24	7,26	7,20	7,24	7233	
plc	21	7.66	4.78	2.14	6.77	.46	3.192338562
	20	7,24	7,29	7,22	7,28	7256	
Hikma Pharmaceuticals	21	6.77	1.80	0.55	1.57	.175	0.041988689
	20	7,28	7,28	7,18	7,25	7234	
Hiscox Ltd	21	1.57	1.57	7.76	2.39	.665	4.725258926
	20	7,25	7,26	7,22	7,24	7241	
HSBC Holdings plc	21	2.39	2.05	0.81	4.41	.43	0.553407228
	20	7,24	7,31	7,24	7,28	7278	
Imperial Brands Group	22	4.41	2.98	4.31	9.58	.645	0.587484036
	20	7,28	7,32	7,27	7,28	7299	
Informa plc	22	9.58	6.02	2.87	2.45	.445	0.192309278
InterContinental Hotels	20	7,28	7,29	7,23	7,23	7262	
Group plc	22	2.45	3.36	1.91	1.91	.635	0.752413793
International							
Consolidated Airlines	20	7,23	7,23	7,15	7,17	7192	
Group SA	22	1.91	1.91	3.39	5.64	.65	4.031095622
	20	7,17	7,17	7,06	7,06	7119	
Intertek Group plc	22	5.64	5.64	3.42	9.90	.53	0.059103448
	20	7,06	7,11	7,06	7,11	7090	
ITV plc	22	9.90	9.21	2.13	5.98	.67	1.156551724
	20	7,11	7,19	7,11	7,14	7156	
JD Sports Fashion plc	22	5.98	7.80	5.60	6.75	.7	2.214176787
Johnson Matthey Plc	20	7,14	7,18	7,10	7,15	7145	0.168275862

	22	6.75	0.71	9.56	7.84	.135	
	20	7,15	7,21	7,14	7,20	7178	
Kingfisher	22	7.84	2.14	5.70	3.24	.92	2.529655172

Data Sources:

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